HiLiftPW-1 Trap Wing Suggested Areas of Flow Solution Post-Processing

In addition to the basic force, moment, and pressure data file preparation required for workshop participation, researchers are also asked (as much as possible) to focus on qualitative and quantitative post-processing of Trap Wing flow solutions for enhanced technical understanding of the following phenomena:

- All regions of flow separation and flow reversal including (but not limited to):
  - Flap / side-of-body (SOB) separation bubble
  - Flap trailing edge (TE) separation
  - Flow reversals on the body pod
  - Flow breakdown beyond CLmax

- Assessment of flow confluence from the slat and main element wakes
  - Thickness of confluence layers
  - Areas of wake merging

- Assessment of turbulence modeling

- Any indication of and insight into hysteresis, non-unique solutions, or other “odd” solution behavior

Examples of additional post-processing data include streamlines, contour maps (e.g. eddy viscosity in wakes or off-body vorticity), velocity vector distributions, etc.